

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph within the clean version of the substitute specification beginning at page 2, line 18, with the following rewritten paragraph.

-- However, the above-mentioned configuration always lets signals pass the $\Delta\Sigma$ modulator 93. Even if no volume adjustment or the like is needed, namely, the factor k is 1.0, music data D11 ~~D4i~~ always passes the $\Delta\Sigma$ modulator 93, degrading sound quality. A fraction eliminator 94 is used for performing specified addition and subtraction to eliminate a fraction remaining in an integrator inside the $\Delta\Sigma$ modulator 93. This operation approximates patterns for an original sound signal D11 ~~D4i~~ and a $\Delta\Sigma$ modulation signal D1'. A delay circuit 96 is used to approximately align phases for the $\Delta\Sigma$ modulation signal D1' and the original sound signal D1i. A control unit 97 monitors signal patterns for the $\Delta\Sigma$ modulation signal D1' and the original sound signal D11 ~~D4i~~. When these patterns almost match, a selector 95 is switched to side a for the delayed original sound signal D1d from side b for the $\Delta\Sigma$ modulation signal D1'. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 3, line 3, with the following rewritten paragraph.

-- When no volume adjustment or the like is needed, this process can switch the $\Delta\Sigma$ modulation signal D1' over to the delayed original sound signal D11 ~~D4i~~ and generate a 1-bit data output from an output terminal 95 without generating a switching noise or the like. This process also can bypass reprocessing in the $\Delta\Sigma$ modulator 93. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 3, line 8, with the following rewritten paragraph.

-- However, a noise may be generated during this switching operation, depending on the specifications of the $\Delta\Sigma$ modulator 93 to be used and the frequency of the 1-bit data D11 ~~D4i~~ to be input. Generally, a high-order $\Delta\Sigma$ modulator can provide a high S/N ratio in an audible

band. On the other hand, frequency characteristics change at a point near the audible band. A phase can easily rotate at a high frequency. When high-order $\Delta\Sigma$ modulation is used and the input signal frequency is high, a level difference and a phase shift occurs between the delayed original sound signal D11 D1i and the $\Delta\Sigma$ modulation signal D1'. ~~A noise~~ Noise occurs when the selector 95 switches between these signals. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 3, line 19, with the following rewritten paragraph.

-- When the low-order $\Delta\Sigma$ modulator 93 is used, it hardly generates a noise during switchover because of little level difference and phase rotation. On the other hand, the audible band causes a low S/N ratio, lowering the S/N ratio ~~ratio~~ when the $\Delta\Sigma$ modulator 93 is not bypassed. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 5, line 10, with the following rewritten paragraph.

-- Embodiments of the present invention will be described in further detail with reference to the accompanying drawings. As shown in FIG. 3, this embodiment is a 1-bit data editing unit 10 which applies edit processing including fading such as fade-in and fade-out to music data D11 D1i comprising 1-bit data resulting from $\Delta\Sigma$ modulation. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 5, line 16, with the following rewritten paragraph.

-- The 1-bit data editing unit 10 comprises a multiplier 12, a $\Delta\Sigma$ modulator 13, a delay circuit 17, a selector 16, and a control unit 18. The multiplier 12 multiplies input 1-bit data D11 D1i by a factor k. The input 1-bit data D11 D1i is the above-mentioned music data to

be input to an input terminal 11. The $\Delta\Sigma$ modulator 13 comprises, e.g, five integrators and reapplies $\Delta\Sigma$ modulation to a multiplied output from the multiplier 12 by varying effective orders, as will be described later. The delay circuit 17 aligns a phase for the input 1-bit data D11 ~~D11~~ to the reprocessed $\Delta\Sigma$ modulation signal D1' from the $\Delta\Sigma$ modulator 13. The selector 16 switches between the delayed original sound signal D1d output from the delay circuit 17 and the reprocessed $\Delta\Sigma$ modulation signal D11 ~~D11~~. The control unit 18 provides controls to vary the effective orders for the $\Delta\Sigma$ modulator 13. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 10, line 27, with the following rewritten paragraph.

-- The following describes the operations of the 1-bit data editing unit 10 in detail with reference back to FIG. 3. In FIG. 3, like the prior art, a 1-bit data D11 ~~D11~~ is input to the input terminal 11 as an original sound signal. The multiplier 12 multiplies the input 1-bit data D11 ~~D11~~ by a factor k (any value) to generate a multi-bit multiplication output with an adjusted sound volume. The $\Delta\Sigma$ modulator 13 receives this output and converts it to 1-bit data to generate the $\Delta\Sigma$ modulation signal D1'. --

Please replace the paragraph within the clean version of the substitute specification beginning at page 11, line 24, with the following rewritten paragraph.

-- When the fraction has been removed, the control unit 18 compares the $\Delta\Sigma$ modulation signal D1' with the delayed original sound signal D11 ~~D11~~. When the output patterns match within an appropriate range, the control unit 18 switches the selector 16 over to the delayed original sound signal D11 ~~D11~~ side a. --